

Work Order ID 109866

December-04-13 7:59:50 AM

109866

Page 1

Item ID: D105-674-011G

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube (Fits LH or RH)

Start Date: 12/04/13 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 12/18/13 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: MLJ Date: 13-12-04 Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
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D2966	Rev A2
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100

0.00

100

DOCUMENT CONTROL

DC

Memo M.I.D.

0.00

Document Control

Photocopy bluefile & type labels per PPP D105-674-011G

CHG002

DAS
31
9-89

14-01-13

130

0.00

130

Skidtubes

Skidtubes

Memo

0.00

Skidtubes

**** Pull D2966-1 bent ****

- 1-Cut Aft end at 107.06" using DT8185D
- 2-Deburr ends
- 3-Drill Aft Cap holes using DT8678
- 4-Locate DT8679 with 1/8 clecos in Aft Cap holes. Ensure DT8679 is centered on Fwd end of tube and drill #40 Fwd bushing.
- 5-Clamp DT8679 to the tube. Drill all #30 wearplate and crossbolt holes.
- 6-Open Aft Cap holes using #6 drill
- 7-Open wearplate holes and two side holes to Ø19/64" (0.297") as per Dwg D2966-1.
- 8-Deburr holes.
- 9-Open remaining (16) crossbolt holes to Ø0.500

- Dec 13 / 12 / 09

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Item ID: D105-674-011G Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Skidtube (Fits LH or RH)
 Start Date: 12/04/13 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 12/18/13 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	Skidtubes	0.00							
140									
Skidtubes	Memo	0.00							
Skidtubes	1-Weld Fwd Cap as per Dwg D2966 and QSI 004. Fill #40 Fwd cleco hole. 2-Grind Fwd Cap welds flush								
150	QC10- Inspect visual per QSI004- ground welds	0.00							
150									
QC	Memo	0.00							
Quality Control									
160	QC5- Inspect part completeness to step on W/O	0.00							
160									
QC	Memo	0.00							
Quality Control									

A/R m122324 > BE13-12-09

13/12/9

13/12/9

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Item ID: D105-674-011G

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Skidtube (Fits LH or RH)

Start Date: 12/04/13 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/18/13 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

170 Chemical Conversion Coat per QSI005 4.1

0.00

170

Hand Finish

Memo

0.00

Hand Finishing

D6h 13-12-09

180 QC7-Inspect Chemical Conversion Coat

0.00

180

QC

Memo

0.00

Quality Control

DP 13-12-09

190 Skidtubes

0.00

190

Skidtubes

Memo

0.00

Skidtubes

1-Open crossbolt holes to finish size as per Dwg D2966
2-Open 14 holes to Ø0.750" & 2 holes to Ø0.875", countersink crossbolt holes &
remove alodine to prepare for welding as per Dwg D2966
3-Deburr holes inside & outside, blow out chips

- DC 13/12/09

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Item ID: D105-674-011G Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Skidtube (Fits LH or RH)
 Start Date: 12/04/13 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 12/18/13 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

200

200

Skidtubes

Skidtubes

Skidtubes

Memo

0.00

1-Bond Web in place per QSI 015. (Ensure holes line up)

Pick:

A/R Sikaflex-291 batch: 127317

Sikaflex expiry date: 14/08/16

start time: 7:45

end time: 13/12/11

2-Weld Crossbolt Spacers as per Dwg D2966 and QSI 004. For crossbolt spacer,
~~weld one side, pass 5/8" drill, weld other side, pass 5/8" drill.~~

Pick:

A/R Aluminum Rod batch: M122324

3-Pass Ø0.630" drill to remove spillover for D2973 crossbolt. Pass Ø0.750" drill
~~to remove spillover for D2974 crossbolt.~~

4-Grind welds flush as per Dwg D2966

BE 13-12-11

210

210

QC

Quality Control

QC10-Inspect visual per QSI004- ground welds

0.00

Memo

0.00

DAS

27

9-89

13/12/11

- DC 13/12/10

BE 13/12/11

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Item ID: D105-674-011G

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Item Name: Skidtube (Fits LH or RH)

Stop ***NS2***

Start Date: 12/04/13 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 12/18/13 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220	QC5- Inspect part completeness to step on W/O	0.00							
220									
QC	Memo	0.00							
Quality Control									
225	Touch up alodine	0.00							
225									
HandFinish	Memo	0.00							
Hand Finishing									
226	Assemble as per dwg	0.00							
226									
HandFinish	Memo	0.00							
Hand Finishing	INSTALL ALS7-1032-130, MS27039-1-08, AN960JD10L IN TWO PLACES BEFORE POWDERCOATING								

DAS
34
9-89

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Item ID: D105-674-011G

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Item Name: Skidtube (Fits LH or RH)

Stop ***NS2***

Start Date: 12/04/13 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 12/18/13 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230	Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3	0.00							
230						1	0	13-12-23	DAS 34 9:29
Powdercoat	Memo	0.00							
Powder Coating	***Install insert/ scw/ washer in two place as per note 6 on 1 dwg D2966***								
	START TIME: 3:15								
	OVEN TEMPERATURE: 320°								
	FINISH TIME: 3:45								
240	QC3- Inspect Part Finish	0.00							
240						124	0	14/0	
QC	Memo	0.00							
Quality Control									

DAS
34
989

1 0 13-12-23

140 0 14/01/08

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Item ID: D105-674-011G

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Item Name: Skidtube (Fits LH or RH)

Stop ***NS2***

Start Date: 12/04/13 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/18/13 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
250	HandFinishing	0.00							
250	HandFinish	0.00							
Hand Finishing	Memo								
	1-Inspect for foreign objects as per QSI 024								
	2-Install Inserts, Wearplate and Cap per Dwg D2966. Insert a drop of sikaflex at insert holes before installing wearplates. Seal Aft Cap using Sikaflex. Install bushing and nut. By looking Fwd, install nut to right hand side.								
	Pick:								
	QtyPart NumberDescriptionBatch								
	A/RSikaflex-291 11173145								
	Sikaflex expiry date: 11/10/13								
	3-Wing Walk as per Dwg D2966 and QSI 005 4.4								
	Batch: 11173622								
260	QC3- Inspect Part Finish	0.00							
260	QC	0.00							
Quality Control	Memo								

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Item ID: D105-674-011G Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
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 Start Date: 12/04/13 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 12/18/13 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
270 *270* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo *****ENSURE INSERT ARE AT LOCATION (6) AS PER DWG D2966*****	0.00 0.00	DAS 27 9-89			1			
280 *280* Packaging Packaging	Pick Kit Memo	0.00 0.00				1X	DAS 28 9-89	14-01-9	
290 *290* QC Quality Control	QC4- 100% Inspect kits for completeness Memo	0.00 0.00	DAS 31 9-89	14-01-13		1			

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Item ID: D105-674-011G

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Item Name: Skidtube (Fits LH or RH)

Stop ***NS2***

Start Date: 12/04/13 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 12/18/13 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

300

0.00

300

Packaging

Packaging

Memo

0.00

DAS

14-1-13

[Signature]

Packaging

Identify and pack for shipping as per PPP D105-674-011G
Location: 071

6
9-89

310

QC21- Final Inspection - Work Order Release

0.00

310

QC

Memo

0.00

Quality Control

14-01-14

[Signature] 14-01-13

Picklist Print

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Page 1

Work Order ID: 109866

109866

Parent Item: D105-674-011G

D105-674-011G

Parent Item Name: Skidtube (Fits LH or RH)

Start Date: 12/04/13

Required Date: 12/18/13

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A04.07.07New IssueKJ/JLM
seq110 DD verf:EC

IPP Rev:B 10.06.09 remove

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2966-1-BENT

Manufactured

No

130

Each

6.0000

1

1

**

Dec 13/12/09

D2966-1-BFNT

Skidtube Assembly 105

Location

Loc Qty

Loc Code

LG002

6

104431

1

108543

4

95510

1

D2964

Manufactured

No

140

Each

3.0000

1

1

**

BEBB B-12-09

D2964

Cap

Location

Loc Qty

Loc Code

LG001

3

83064

3

D2976

Manufactured

No

200

Each

1.0000

1

1

**

Dec 13/12/10

D2976

Bo 105 Skidtube Beam

Location

Loc Qty

Loc Code

LG002

1

108832

1

Picklist Print

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Work Order ID: 109866

109866

Parent Item: D105-674-011G

D105-674-011G

Parent Item Name: Skidtube (Fits LH or RH)

Start Date: 12/04/13

Required Date: 12/18/13

Start Qty: 1.00

Required Qty: 1.00

D2971
D2971
Gross Bolt Spacer

Manufactured No

200 Each 60.0000 1 1

**

BE 12-12-11

Location	Loc Qty	Loc Code
LG001	60	
108778	40	
74720	12	
86730	8	

D2973
D2973
Gross Bolt Spacer

Manufactured No

200 Each 159.0000 7 7

**

BE 12-12-11

Location	Loc Qty	Loc Code
LG001	159	
101720	4	
107428	131	
80092	4	
94172	12	
95876	8	

D2965
D2965
Cap

Manufactured No

250 Each 45.0000 1 1

**

ll 14/01/06

Location	Loc Qty	Loc Code
FP001	45	B110516
80089	12	
99551	33	

D2970-1
D2970-1
Wearplate Fwd

Manufactured No

250 Each 10.0000 1 1

**

ll 14/01/06

Location	Loc Qty	Loc Code
FP002	10	
99619	10	

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109866

Parent Item: D105-674-011G

D105-674-011G

Parent Item Name: Skidtube (Fits LH or RH)

Start Date: 12/04/13

Required Date: 12/18/13

Start Qty: 1.00

Required Qty: 1.00

D2970-3

Manufactured No

250

Each

11.0000

1

1

D2970-3

Wearplate Center

**

ul 14/01/08

Location

Loc Qty

Loc Code

FP002

11

99758

11

xl

D3176-1

Manufactured No

250

Each

30.0000

1

1

D3176-1

Bushing

**

ul 14/01/08

Location

Loc Qty

Loc Code

ST032

30

108637

20

86920

1

xl

95511

9

D3176-3

Manufactured No

250

Each

32.0000

1

1

D3176-3

Nut

**

ul 14/01/08

Location

Loc Qty

Loc Code

ST032

32

108638

20

44896

1

95512

11

xl

Picklist Print

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Work Order ID: 109866

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Parent Item: D105-674-011G

D105-674-011G

Parent Item Name: Skidtube (Fits LH or RH)

Start Date: 12/04/13

Required Date: 12/18/13

Start Qty: 1.00

Required Qty: 1.00

ALS7-1032-130

Purchased

No

250

Each

2,493.000

36

36

A1 S7-1032-130

el 14/01/02

Rivnut

Location

Loc Qty

Loc Code

FG 100

121444 100

FP001 305

117717 27

118966 22

119530 73

119775 2

120181 12

121444 166

122474 3

ST279 102

122763 52

124226 50

st510 1986

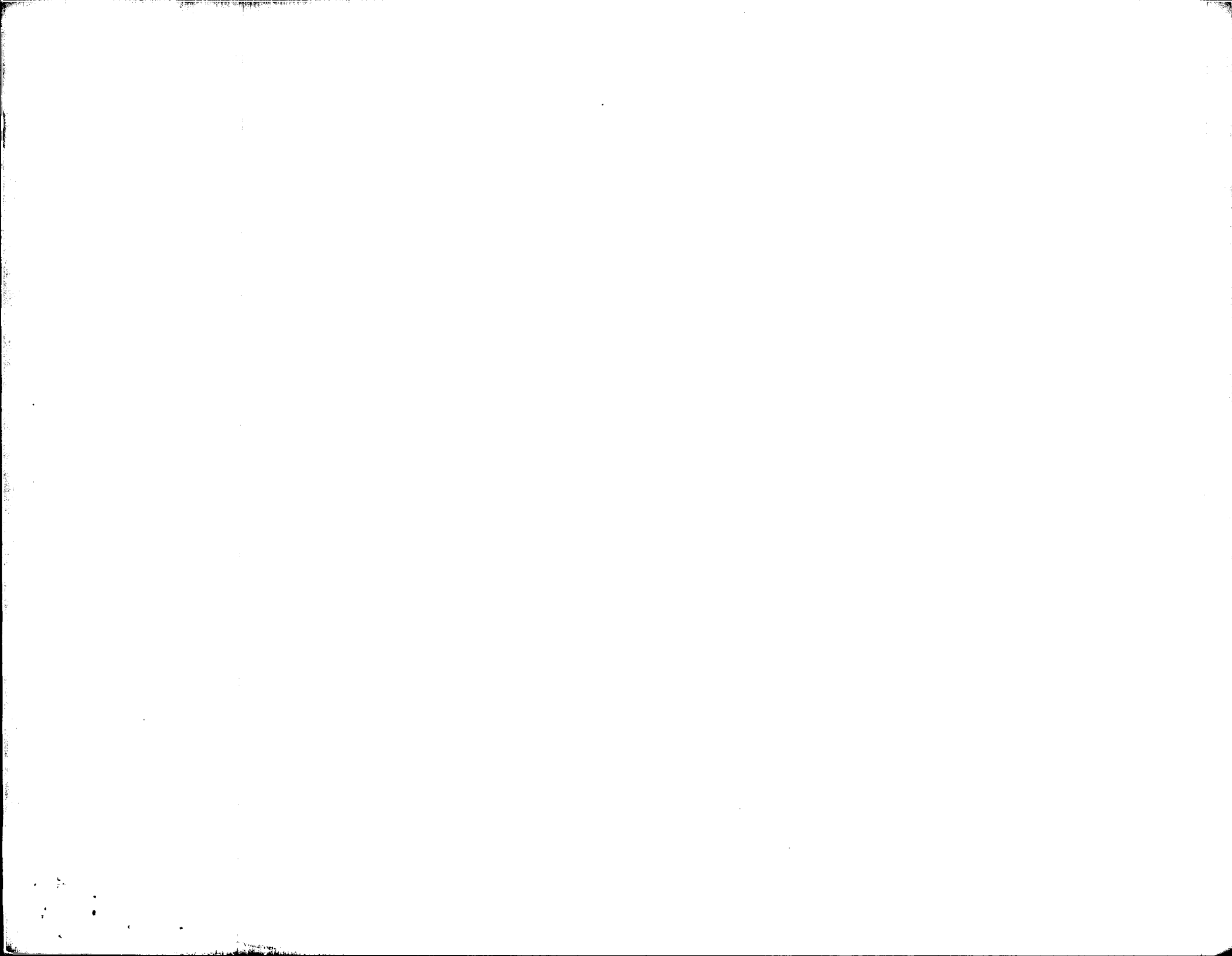
m126109 1986

136

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Work Order ID: 109866

109866

Parent Item: D105-674-011G

D105-674-011G

Parent Item Name: Skidtube (Fits LH or RH)

Start Date: 12/04/13

Required Date: 12/18/13

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-08

Purchased

No

250

Each

1,261.000

26

26

MS27039-1-08

**

Screw

Location

Loc Qty

Loc Code

GA

1

117423

1

ST305

3

121243

3

ST506

36

124326

36

st507

1217

m126319

717

m127255

500

ST509

4

125654

4

NAS1149D0332J

Purchased

No

250

Each

2,705.000

28

28

NAS1149D0332.J

**

Washer

Location

Loc Qty

Loc Code

ST293

1435

125268

7

m127374

479

m127431

949

ST294

270

122973

75

125044

8

m125807

187

ST511

1000

m127389

1000

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Work Order ID: 109866

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Parent Item: D105-674-011G

D105-674-011G

Parent Item Name: Skidtube (Fits LH or RH)

Start Date: 12/04/13

Required Date: 12/18/13

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-09

Purchased

No

250

Each

772.0000

2

2

MS27039-1-09

Screw

**

14/01/09

Location

Loc Qty

Loc Code

FP001

62

18057

62

GA

50

111650

50

ST305

601

122814

1

124859

200

125646

200

125654

200

ST508

59

124093

59

D2972

Manufactured

No

290

Each

62.0000

6

6

D2972

Bushing

**

DAS
28
9-89

14-01-9

Location

Loc Qty

Loc Code

ST022

62

101694

12

108838

40

95856

10

D2974

Manufactured

No

290

Each

15.0000

1

1

D2974

Packer Aft

**

DAS
28
9-89

Location

Loc Qty

Loc Code

ST022

15

99708

15

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Parent Item: D105-674-011G

D105-674-011G

Parent Item Name: Skidtube (Fits LH or RH)

Start Date: 12/04/13

Required Date: 12/18/13

Start Qty: 1.00

Required Qty: 1.00

D2975 Manufactured No

290 Each

0.0000

2 2

D2975

DAS
31
9-89

Wearplate

AN4-51A

Purchased No

290 Each

184.0000

3 3

AN4-51A

Bolt

**

β108812

DAS
28
9-89

14-01-9

**

DAS
28
9-89

DAS
31
9-89

Location

Loc Qty

Loc Code

FG	5
122993	5
ST360	179
122993	1
123831	13
125427	8
m127363	107
m127410	50

290 Each

2,705.000

8 8

NAS1149D0332J

Purchased

No

NAS1149D0332J

Washer

**

DAS
28
9-89

DAS
31
9-89

Location

Loc Qty

Loc Code

ST293	1435
125268	7
m127374	479
m127431	949
ST294	270
122973	75
125044	8
m125807	187
ST511	1000
m127389	1000

8X

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Work Order ID: 109866

109866

Parent Item: D105-674-011G

D105-674-011G

Parent Item Name: Skidtube (Fits LH or RH)

Start Date: 12/04/13

Required Date: 12/18/13

Start Qty: 1.00

Required Qty: 1.00

MS21042L4

Purchased

No

290

Each

4,495.000

3 3

MS21042L4

Locknut

**

DAS

28

9-89

14-01-9



DAS
31
9-89

Location

Loc Qty

Loc Code

FP001

84

122452

38

8182

12

m117441

12

m119017

6

m121444

16

ST314

9

m125708

9

st507

33

m126073

33

ST509

4084

m123376

2000

m126275

190

m127255

1894

ST510a

127

m126333

127

ST518

158

124231

158

127376

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Parent Item: D105-674-011G

D105-674-011G

Parent Item Name: Skidtube (Fits LH or RH)

Start Date: 12/04/13

Required Date: 12/18/13

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-08

Purchased

No

290

Each

1,261.000

8 8

**

DAS

28

9-89

14-01-9

MS27039-1-08

Screw

DAS

31

9-89

Location

Loc Qty

Loc Code

GA	1	
117423	1	
ST305	3	
121243	3	
ST506	36	
124326	36	
st507	1217	
m126319	717	
m127255	500	
ST509	4	
125654	4	

8X

DAS

6

9-89



DESIGN RF	DRAWN BY RF	DART AEROSPACE USA, INC. BELLEVUE, WA	
CHECKED #	APPROVED #	DRAWING NO. D2966	REV. A SHEET 1 OF 2
DATE 00.03.08		TITLE BO 105 SKIDTUBE ASSEMBLY	SCALE NTS
A	00.03.08	NEW ISSUE	

RELEASED
00.05.11 #

Qty	Part Number	Description
X	D2966-041	SKIDTUBE ASSEMBLY
1	D2962-125	EXTRUSION
1	D2964	CAP
1	D2965	CAP
1	D2970-1	WEARPLATE
1	D2970-3	WEARPLATE
1	D2971	CROSS BOLT SPACER
7	D2973	CROSS BOLT SPACER
1	D2976	WEB
36	ALS7-1032-130 or ALS4-1032-130 or AKS7-1032-130 or AKS4-1032-130	INSERT
28	AN960JD10L	WASHER
26	MS27039-1-08	SCREW
2	MS27039-1-09	SCREW
1	D3176-1	BUSHING
1	D3176-3	NUT



109866 M-5
13-12-04

GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) WELDING TO BE DONE PER DART QSI 004.
- 3) INSERT D2976 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015 AFTER BENDING.
- 4) USE DART DRILL TEMPLATE DT8451 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION B-B (34 PLACES) AFTER FINISH. SEAL WEARPLATE SCREWS WITH SIKAFLEX-241/-291.
- 5) DO NOT INSTALL MS27039-1-08 SCREWS AND AN960JD10L WASHERS IN THESE LOCATIONS.
- 6) INSTALL ALS7-1032-130 INSERT, MS27039-1-08 SCREW, AND AN960JD10L WASHER IN 2 PLACES THIS LOCATION BEFORE POWDER COATING.
- 7) FINISH:

ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2976 WEB
POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.4) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.00 ABOVE CENTER LINE PER DART
QSI 005 4.4 (OPTIONAL) BLACK SANDTEX (REF 4.3.5.7)



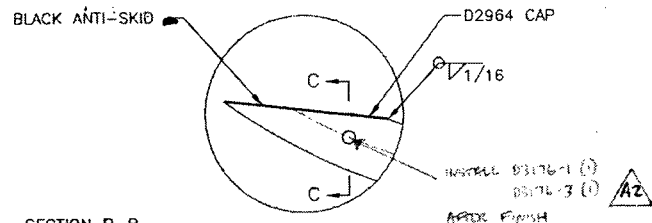
01.01.24
CP 01.01.30

A2	02.10.30	ADD D3176-1/-3	# CP
A1	01.01.24	CHANGE COLOR TO BLACK SANDTEX	# CP

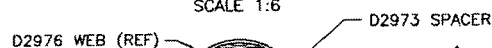
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DETAIL A
SCALE 1:3



SECTION B-B
SCALE 1:6

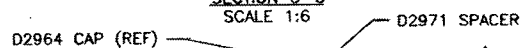


AFTER BENDING AND DRILLING ASSEMBLY
PERFORM THE FOLLOWING FOR $\phi 0.750$ HOLES ONLY:
1. CHAMFER HOLE $0.030 \times 45^\circ$
2. INSERT D2973 SPACER (7 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. PASS $\phi 0.630$ DRILL TO REMOVE SPILL OVER

ALS7-1032-130 INSERT (34 PLACES)

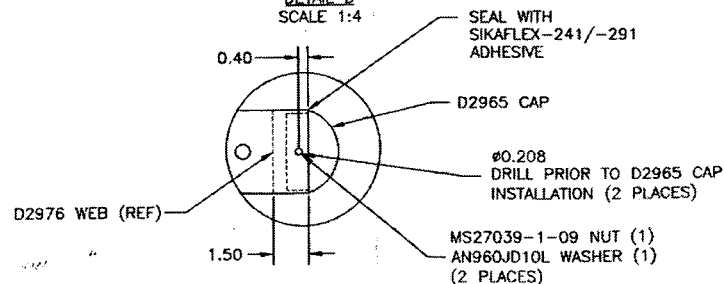
MS27039-1-08 SCREW (1)
AN960JD10L WASHER (1)
(26 PLACES)

SECTION C-C
SCALE 1:6

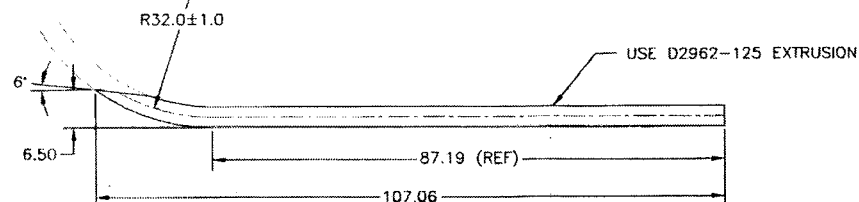


PERFORM THE FOLLOWING FOR $\phi 0.625$ HOLES ONLY:
5. CHAMFER HOLE $0.030 \times 45^\circ$
6. INSERT D2971 SPACER
7. WELD INTO PLACE AND GRIND FLUSH
8. PASS $\phi 0.484$ DRILL TO REMOVE SPILL OVER

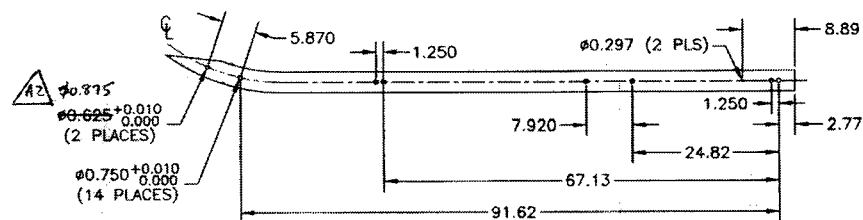
DETAIL D
SCALE 1:4



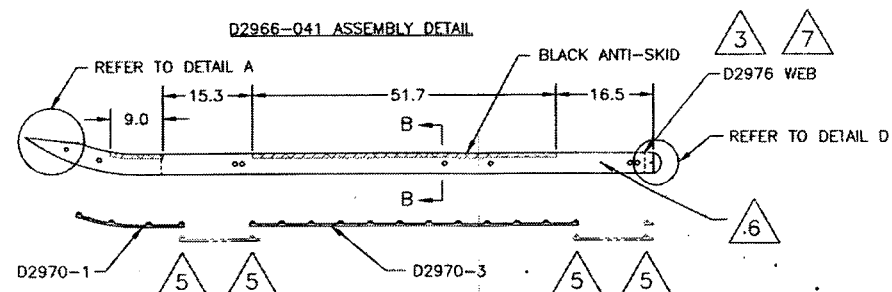
D2966-1 BENDING/CUTTING DETAIL



D2966-1 DRILLING DETAIL



D2966-041 ASSEMBLY DETAIL



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DESIGN RF	DRAWN BY RF
CHECKED 4	APPROVED 4
DATE 00.03.08	

DART DART AEROSPACE USA, INC. BELLEVUE, WA	REV. A
DRAWING NO. D2966	SHEET 2 OF 2
TITLE BO 105 SKIDTUBE ASSEMBLY	SCALE 1:20

RELEASED
00-05-11

NO. 333

**AWS D17.1.2001
QUALIFICATION TEST RECORD**

Name: Barclay Elliot
Job #: 108540
Part #: A105-674-011
Description: Skid tube
Welding Process: Tig[☒] Mig[]
Base material: Alum
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual:	pass[<input checked="" type="checkbox"/>]	fail[]
Incomplete Penetration:	pass[<input checked="" type="checkbox"/>]	fail[]
Incomplete Fusion:	pass[<input checked="" type="checkbox"/>]	fail[]
Cracks:	pass[<input checked="" type="checkbox"/>]	fail[]
Overlap (cold lap)	pass[<input checked="" type="checkbox"/>]	fail[]
Undercut:	pass[<input checked="" type="checkbox"/>]	fail[]
Pin holes:	pass[<input checked="" type="checkbox"/>]	fail[]
Porosity (surface):	pass[<input checked="" type="checkbox"/>]	fail[]
Coloration:	pass[<input checked="" type="checkbox"/>]	fail[]
Burn through:	pass[<input checked="" type="checkbox"/>]	fail[]

Qualifier David Mugh Date of Test Coupon 13-10-25
Welder Barclay Elliot Date of Test Coupon 13-10-25

The above named individual is qualified in accordance with AWS D17.1.2001 to weld

Work Order ID 109866

December-04-13 7:59:50 AM

109866

Page 1

Item ID: D105-674-011G

Revision ID:

Item Name: Skidtube (Fits LH or RH)

Start Date: 12/04/13 Start Qty: 1.00

Required Date: 12/18/13 Req'd Qty: 1.00

Reference:

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Approvals: Process Plan: MLJ Date: 13-12-04 Tooling: Date: Run Start *NR1*

QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
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D2966	Rev A2
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100

100

DC

Document Control

DOCUMENT CONTROL

Memo 11.10.

Photocopy bluefile & type labels per PPP D105-674-011G

CH6002

CH6003

see attachment

MLJ 14-01-10

130

130

Skidtubes

Skidtubes

Skidtubes

Memo

** Pull D2966-1bent **

- 1-Cut Aft end at 107.06" using DT8185D
- 2-Deburr ends
- 3-Drill Aft Cap holes using DT8678
- 4-Locate DT8679 with 1/8 clecos in Aft Cap holes. Ensure DT8679 is centered on Fwd end of tube and drill #40 Fwd bushing.
- 5-Clamp DT8679 to the tube. Drill all #30 wearplate and crossbolt holes.
- 6-Open Aft Cap holes using #6 drill
- 7-Open wearplate holes and two side holes to Ø19/64" (0.297") as per Dwg D2966-1.
- 8-Deburr holes.
- 9-Open remaining (16) crossbolt holes to Ø0.500

- Dec 13 / 12 / 09

Change Record

PAGE 1 OF 1

Part Number: D105-674-011/-011G

Description: SKIDTUBE

[illegible]

REFERENCE ONLY**32.3 WEIGHT AND BALANCE:**

The following weight and balance information is for Dart skidtube installations only. The weight and balance of the skidtube installations that are being removed from the aircraft are the responsibility of the installer.

Installation	LONGITUDINAL			LATERAL	
	Weight	Arm	Moment	Arm	Moment
D105-674-011 SKIDTUBE INSTALLATION	19.3 lb 8.8 kg	103.9 in 2.6 m	2005.3 in lb 22.9 m kg	± 47.3 in ± 1.2 m	± 912.9 in lb ± 10.6 m kg

32.4 PART LIST

Item	011	-041	Part Number	Description
	X		D105-674-011	SKIDTUBE INSTALLATION
	1	X	D105-674-041	REPLACEMENT SKIDTUBE
1		1	D2966-041	SKIDTUBE ASSEMBLY
2	4		105-50301	** CLAMP
3	8		LN9380M8X45	** BOLT
4	8		LN9023B8-1.4544.9	** LOCKING WASHER
5		1	D2965	* AFT CAP
6		2	MS27039-1-09	* SCREW
7		2	AN960JD10L	* WASHER
8		1	D2970-1	* WEARPLATE
9		1	D2970-3	* WEARPLATE
10	1		D2974	PACKER
11	2		D2975	WEARPLATE
12		34	AKS7-1032-130	* INSERT
13	8	26	MS27039-1-08	* SCREW
14	8	26	AN960JD10L	* WASHER
15		2	AKS7-1032-130	* INSERT
16		2	MS27039-1-08	* SCREW
17		2	AN960JD10L	* WASHER
18	3		AN4-51A	BOLT
19	6		D2972	BUSHING
20	3		MS21042L4	NUT (OR MS21042-4)

* DENOTES THAT PART IS INCLUDED WITH D2966-041 ASSEMBLY.

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32-00-00